SECURITIES AND EXCHANGE COMMISSION (Release No. 34-69925; File No. SR-OCC-2013-803)

July 3, 2013

Self-Regulatory Organizations; The Options Clearing Corporation; Notice of Filing of Advance Notice to Reflect Enhancements in OCC's System for Theoretical Analysis and Numerical Simulations as Applied to Longer-Tenor Options

Pursuant to Section 806(e)(1) of the Payment, Clearing, and Settlement

Supervision Act of 2010 ("Clearing Supervision Act")¹ and Rule 19b-4(n)(1)(i)² of the

Securities Exchange Act of 1934 ("Exchange Act") notice is hereby given that on June 4,

2013, The Options Clearing Corporation ("OCC") filed with the Securities and Exchange

Commission ("Commission") the advance notice described in Items I and II below,

which Items have been substantially prepared by OCC.³ The Commission is publishing

this notice to solicit comments on the advance notice from interested persons.

I. <u>Clearing Agency's Statement of the Terms of Substance of the Advance Notice</u>

OCC is proposing to provide for enhancements in OCC's margin model for longer-tenor options (*i.e.*, those options with at least three years of residual tenor) and OCC intends to reflect those enhancements in the description of OCC's margin model in OCC's Rules through a corresponding proposed rule change.⁴

¹ 12 U.S.C. 5465(e)(1).

² 17 CFR 240.19b-4(n)(1)(i).

OCC is a designated financial market utility and is required to file advance notices with the Commission. See 12 U.S.C. 5465(e). OCC also filed the proposals contained in this advance notice as a proposed rule change under Section 19(b)(1) of the Exchange Act and Rule 19b-4 thereunder. 15 U.S.C. 78s(b)(1); 17 CFR 240.19b-4. See SR-OCC-2013-08.

See supra note 3.

II. <u>Clearing Agency's Statement of the Purpose of, and Statutory Basis for, the</u> Advance Notice

In its filing with the Commission, OCC included statements concerning the purpose of and basis for the advance notice and discussed any comments it received on the advance notice. The text of these statements may be examined at the places specified in Item IV below. OCC has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.⁵

(A) <u>Clearing Agency's Statement of the Purpose of, and Statutory Basis for, the Advance Notice</u>

The purpose of this advance notice is to provide for enhancements in OCC's margin model for longer-tenor options (*i.e.*, those options with at least three years of residual tenor) and OCC intends to reflect those enhancements in the description of OCC's margin model in OCC's Rules through a corresponding proposed rule change.⁶

1. <u>Background</u>

On August 30, 2012, OCC submitted a rule change and advance notice with respect to OCC's proposal to clear certain over-the-counter options on the S&P 500 Index ("OTC Options Filings"). Additional information concerning OCC's proposal to clear OTC Options is included in the OTC Options Filings. As described in the OTC Options Filings, OCC intends to use its STANS margin system to calculate margin requirements for OTC Options on the same basis as for exchange-listed options cleared by OCC. However, OCC is proposing to implement enhancements to its risk models for

The Commission has modified the text of the summaries prepared by the clearing agency.

See <u>supra</u> note 3.

See Exchange Act Release No. 68434 (Dec. 14, 2012), 77 FR 75243 (Dec. 19, 2012) (SR-OCC-2012-14 and AN-OCC-2012-01).

all longer-tenor options (including OTC Options) in order to better reflect certain risks of longer-tenor options. The changes described herein would apply to all longer-tenor options cleared by OCC and would be implemented before OCC begins clearing OTC Options.

2. <u>Description of Current Proposed Changes</u>

OCC states that the proposed change includes daily OTC quotes, variations in implied volatility and valuation adjustments in the modeling of all longer-tenor options under STANS, thereby enhancing OCC's ability to set margin requirements through the use of risk-based models and encouraging clearing members to have sufficient financial resources to meet their obligations to OCC. OCC states that the proposed change would not affect OCC's safeguarding of securities and funds in its custody or control because though it may change margin requirements in respect of certain longer-tenor options, it does not change the manner in which margin assets are pledged. In addition, OCC states that the proposed change allows OCC to enhance its risk management procedures and controls related to longer-tenor options.

OCC states that it calculates clearing-level margin using STANS, which determines the minimum expected liquidating value of each account using a large number of projected price scenarios created by large-scale Monte Carlo simulations. OCC is proposing to implement enhancements to the STANS margin calculation methodology with respect to longer-tenor options and to amend Rule 601 to reflect these enhancements as well as to make certain clarifying changes in the description of STANS in Rule 601. The specific details of the calculations performed by STANS are maintained in OCC's

proprietary procedures for the calculation of margin and coded into the computer systems used by OCC to calculate daily margin requirements.

OCC has proposed at this time to clear only OTC Options on the S&P 500 index and only such options with tenors of up to five years. However, OCC currently clears FLEX Options with tenors of up to fifteen years. While OCC believes that its current risk management practices are adequate for current clearing activity, OCC proposes to implement risk modeling enhancements with respect to all longer-tenor options.

Daily OTC Indicative Quotes

OCC states that, in general, the market for listed longer-tenor options is less liquid than the market for other options, with less volume and therefore less price information. In order to supplement OCC's pricing data derived from the listed markets, and to improve the valuation process for longer-tenor options, OCC proposes to include in the daily dataset of market prices used by STANS to value each portfolio indicative daily quotations obtained through a third-party service provider that obtains these quotations through a daily poll of OTC derivatives dealers. A third-party service provider was selected to provide this data in lieu of having the data provided directly by the OTC derivatives dealers in order to avoid unnecessarily duplicating reporting that is already done in the OTC markets.

Variations in Implied Volatility

OCC states that, to date, the STANS methodology has assumed that implied volatilities of option contracts do not change during the two-day risk horizon used by OCC in the STANS methodology. According to OCC, back testing of its margin models has identified few instances in which this assumption would have, as a result of sudden

changes in implied volatility, resulted in margin deposits insufficient to liquidate clearing member accounts without loss. However, as OCC expects to begin clearing more substantial volumes of longer-tenor options, including OTC Options, OCC believes that implied volatility shocks may become more relevant due to the greater sensitivity of longer-tenor options to implied volatility. OCC therefore proposes to introduce variations in implied volatility in the modeling of all longer-tenor options under STANS. OCC states that this will be achieved by incorporating, into the set of risk factors whose behavior is included in the econometric models underlying STANS, time series of proportional changes in implied volatilities for a range of tenors and in-the-money and out-of-the-money amounts representative of the dataset provided by OCC's third-party service provider.

OCC states that it has reviewed individual S&P 500 Index put and call options positions with varying in-the-money amounts and with four to nine years of residual tenor and that such review indicates that the inclusion of modeled implied volatilities tends to result in less margin being held against short call positions and more margin being held against short put positions. OCC states that these results are consistent with what would be expected given the strong negative correlation that exists between changes in implied volatility and market returns.

OCC states that the description of the Monte Carlo simulations performed within STANS in Rule 601 references revaluations of assets and liabilities in an account under numerous price scenarios for "underlying interests." In order to accommodate the proposed implied volatility enhancements, OCC is proposing to amend this portion of Rule 601 to provide that the scenarios used may also involve projected levels of other

variables influencing prices of cleared contracts and modeled collateral. Accordingly, the references to "underlying interests" are proposed to be deleted.

Valuation Adjustment

OCC states that historically it has not cleared a significant volume of longer-tenor options, but that it anticipates that there will be growth in the volume of longer-tenor options, including OTC Options, being cleared with three to five year tenors. According to OCC, longer-tenor options may represent a larger portion of any clearing member's portfolio in the future, and OCC has therefore identified a need to model anticipated changes in the value of longer-tenor options on a portfolio basis in order to address OCC's exposure to longer-tenor options that may have illiquid characteristics. OCC proposes to introduce a valuation adjustment into the portfolio net asset value used by STANS based upon the aggregate sensitivity of any longer-tenor options in a portfolio to the overall level of implied volatilities at three years and five years and to the relationship between implied volatility and exercise prices at both the three- and five-year tenors in order to allow for the anticipated market impact of unwinding a portfolio of longer-tenor options, as well as for any differences in the quality of data in OCC's third party service provider's dataset, given that month-end data may be subjected to more extensive validation by the service provider than daily data. In order to accommodate the planned valuation adjustment for longer-tenor options, OCC proposes to add language to Rule 601 to indicate that the projected portfolio values under the Monte Carlo simulations may be adjusted to account for bid-ask spreads, illiquidity, or other factors.

Clarification of Pricing Model Reference in Rule 601

Rule 601 currently refers to the use of "options pricing models" to predict the impact of changes in values on positions in OCC-cleared contracts. OCC is proposing to amend this description to reflect that OCC currently uses non-options related models to price certain instruments, such as futures contracts and U.S. Treasury securities. OCC states that this change is not intended to be substantive and simply clarifies the description in Rule 601.

Effect on Clearing Members

OCC states that the proposed change will affect clearing members who engage in transactions in longer-tenor options, and indirectly their customers, by enhancing the STANS margin calculation methodology for these options. The STANS enhancements could increase margin requirements with respect to these positions. However, OCC states that it does not believe that the enhancements will result in significantly increased margin requirements for any particular clearing member, and therefore is not aware of any significant problems that clearing members are likely to have in complying with the proposed rule change.

OCC states that the proposed rule change is consistent with the purposes and requirements of Section 17A(b)(3)(F) of the Exchange Act⁸ and the rules and regulations thereunder, including Rule 17Ad-22(b)(2) ⁹ and Rule 17Ad-22(d)(2) ¹⁰ because by providing additional clarity to clearing members and others concerning the current

⁸ 15 USC 78q-1(b)(3)(F).

⁹ 17 CFR 240.17Ad-22(b)(2).

¹⁰ 17 CFR 240.17Ad-22(d)(2).

calculation of margin requirements under OCC's Rules, while also enhancing the calculation of margin with respect to longer-tenor options, the proposed modifications would help remove impediments to and perfect the mechanism of a national system for the prompt and accurate clearance and settlement of securities transactions, ensure that OCC's rules are reasonably designed to have participation requirements that are objective and publicly disclosed and permit fair and open access, and provide for a well-founded, transparent, and enforceable legal framework. OCC states that the proposed rule change is not inconsistent with any rules of OCC, including any other rules proposed to be amended.

(B) <u>Clearing Agency's Statement on Comments on the Advance Notice</u> Received from Members, Participants, or Others

Written comments were not and are not intended to be solicited by OCC with respect to the advance notice and none have been received.

(C) Advance Notices Filed Pursuant to Section 806(e) of the Clearing Supervision Act

OCC is filing this proposed change as an advance notice pursuant to Section 806(e)(2) of the Clearing Supervision Act because the proposed change could be deemed to materially affect the nature or level of risks presented by OCC. However, OCC believes that the Rule changes and changes in OCC's system for calculating margin on longer-tenor options will represent enhancements to OCC's ability to manage the risks presented to it, particularly as OCC begins clearing OTC Options.

According to OCC, OTC Options are nearly identical to listed FLEX options on the S&P 500 that OCC has cleared for many years. OTC Options have the same degree of customization as FLEX options except that OTC Options are limited to a maximum

tenor of five years whereas FLEX options can have tenors of up to fifteen years. In this respect, OCC states that OTC Options pose less of a challenge from a risk management perspective than do FLEX options. However, OCC believes, based on activity in the existing OTC markets for uncleared, bilateral options, that there may be greater open interest in OTC Options with tenors exceeding three years as compared to FLEX options, in which open interest is more concentrated in shorter term options. In addition, it is inherent in the nature of the OTC option markets that there are no market makers with affirmative duties to create liquidity by standing ready to buy and sell OTC Options in response to market interest as in the listed options markets, including the FLEX options market.

In order to address the potentially greater open interest in longer-tenor options, OCC is proposing to supplement its existing risk management procedures by enhancing its STANS margining system by:

- (i) including in the daily dataset of market prices used by STANS to value each portfolio indicative daily quotations obtained through a third-party service provider that obtains these quotations through a daily poll of OTC derivatives dealers;
- (ii) incorporating, into the set of risk factors whose behavior is included in the econometric models underlying STANS, time series of proportional changes in implied volatilities, for a range of tenors and in-the-money and out-of-themoney amounts representative of the foregoing dataset; and
- (iii) introducing a valuation adjustment into the portfolio net asset value used by STANS, based upon the aggregate sensitivity of any longer-tenor options

in a portfolio to the overall level of implied volatilities at three years and five years and to the relationship between implied volatility and exercise prices at both the three- and five-year tenors in order to allow for the market impact of unwinding a portfolio of longer-tenor options, as well as for any differences in the quality of data provided by OCC's third party service provider's dataset, given that month-end data may be subjected to more extensive validation by the service provider than daily data.

These proposed changes are described in more detail above. As noted above, OCC will not commence clearing of OTC Options unless and until the Commission has approved the modeling enhancements described herein.

OCC may implement the proposed change pursuant to Section 806(e)(1)(G) of the Clearing Supervision Act¹¹ if it has not received an objection to the proposed change within 60 days of the later of (i) the date that the Commission received the advance notice or (ii) the date the Commission receives any further information it requested for consideration of the notice. The clearing agency shall not implement the proposed change if the Commission has any objection to the proposed change.

The Commission may extend the period for review by an additional 60 days if the proposed change raises novel or complex issues, subject to the Commission providing the clearing agency with prompt written notice of the extension. A proposed change may be implemented in less than 60 days from the date of receipt of the advance notice, or the date the Commission receives any further information it requested, if the Commission notifies the

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¹² U.S.C. 5465(e)(1)(G).

clearing agency in writing that it does not object to the proposed change and authorizes the clearing agency to implement the proposed change on an earlier date, subject to any conditions imposed by the Commission.

The clearing agency shall post notice on its website of proposed changes that are implemented.

The proposal shall not take effect until all regulatory actions required with respect to the proposal are completed. 12

IV. Solicitation of Comments

Interested persons are invited to submit written data, views and arguments concerning the foregoing. Comments may be submitted by any of the following methods:

Electronic Comments:

- Use the Commission's Internet comment form (http://www.sec.gov/rules/sro.shtml); or
- Send an e-mail to <u>rule-comments@sec.gov</u>. Please include File Number SR-OCC-2013-803 on the subject line.

Paper Comments:

 Send paper comments in triplicate to Elizabeth M. Murphy, Secretary, Securities and Exchange Commission, 100 F Street, NE, Washington, DC 20549-1090.

All submissions should refer to File Number SR-OCC-2013-803. This file number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The

OCC also filed the proposals contained in this advance notice as a proposed rule change under Section 19(b)(1) of the Exchange Act and Rule 19b-4 thereunder. See supra note 3.

Commission will post all comments on the Commission's Internet website (http://www.sec.gov/rules/sro.shtml). Copies of the submission, all subsequent amendments, all written statements with respect to the advance notice that are filed with the Commission, and all written communications relating to the advance notice between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street, NE, Washington, DC 20549 on official business days between the hours of 10:00 am and 3:00 pm. Copies of the filing also will be available for inspection and copying at the principal office of OCC and on OCC's website (http://www.theocc.com/about/publications/bylaws.jsp). All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR-OCC-2013-803 and should be submitted on or before [insert date 21 days from

By the Commission.

publication in the Federal Register].

Elizabeth M. Murphy Secretary